specimens collected along the east slope of the Sierra Nevada [near Olancha, Inyo county] in Owens Valley are almost intermediate, both in size and color, between *Amphispiza belli* and *Amphispiza belli nevadensis*." Dr. Fisher cites the same instance later (*Auk*, XV, April 1898, p. 190) as an argument against my contention that *nevadensis* is a distinct species from *belli*. Through the courtesy of Dr. Fisher I have just been enabled to examine these specimens, and I find they are unquestionably referable to *canescens*, thus indicating the range of this form further northward. Their measurements are very slightly greater than those of my series of *canescens* previously presented, which points toward a possibility of interosculation between *canescens* and *nevadensis* still further north along the Sierras. But as I have already emphasized there is not yet the least evidence that *canescens* grades into *belli* geographically. This is the identical point of my contention in 1898, as above referred to; then I had specimens of *canescens* in hand, calling them *nevadensis* as labeled by an eastern authority. It is therefore only under protest that I use the combination *Amphispiza belli canescens*, instead of *Amphispiza nevadensis canescens*.

Notes From Flathead, 1904

BY P. M. SILLOWAY

ILLUSTRATED BY THE AUTHOR

IT had been reported to me by reliable observers that the varied thrush was nesting in the Flathead region of Montana, but I did not succeed in establishing the fact for record until this season. In the summer of 1903 I took adult specimens of the varied thrush (*Ixoreus nævius*) at Swan Lake, about eight miles from Flathead Lake, and in the same summer collected a young thrush at Flathead which evidently had been out of the nest about two weeks. In 1904, however, I succeeded in finding a nest of this thrush.

It came about in this way. Just across the Swan River from the University of Montana Biological Station there is a patch of undisturbed woodland used as a club ground for sportsmen. A road through this woodland is used daily by people who have settled in the neighborhood of the club grounds. Near the gate opening into the grounds is a by-path, along which I generally entered the grounds, as it is more shady and offered better facilities for collecting. Now on June 25, while passing along the woods road, I chanced upon a fledgling varied thrush which had left the nest but was yet unable to fly. I caught it with my hands as it hopped among the weeds at the edge of the woods. This event seemed quite singular to me, for the natives had told me that this thrush nests very early in the season; here was indisputable evidence, however, that the varied thrush was nesting in this particular piece of woods, and at a comparatively late time of the season. On July 5, I took another young varied thrush along the same road, near the place where I had taken the first specimen. This bird was flying about independently, though it was likely one of the brood to which the first belonged. Thinking that the varied thrush season for nesting had closed, I gave no time to looking for nests; and of course the nest was found by accident.

It was on July 12. On that day, instead of following the somber by-path, I entered the club grounds through the gate by the roadway. When scarcely

twenty yards within the grounds, my attention was attracted by a female varied thrush chirping in the lower branches of a large conifer. I lost no time in collecting her, and soon went on my way rejoicing; but something about her peculiar action, in sitting there chirping as she had done, set me to thinking. I went back to the place, and looking over the locality, found a nest in a scrubby fir about twenty feet from the roadside. The affair did not look promising, for it appeared to be an old nest of olive-backed thrush, though somewhat larger. The site was eleven feet from the ground, on a horizonsal branch beside the main stem, a typical site for the olive-back. Upon climbing to it, I found three eggs in the nest. It was a bulky structure, having an external framework of coarse twigs, with thick walls of lichen, bark, and dried grasses. The lining was of fine dried grass, the cavity being three inches and three and one-half inches across in various directions, and one and seven-eights inches deep. In preparing the eggs, I found them incubated 50 per cent or more. Later dissection of the female showed that the set was complete. After packing the eggs, I went back to the station, got an axe, cut down the tree, cut out the section containing the nest, and later photographed the nest in situ with the accompanying results.

The male had not yet appeared, and I waited. While cutting down the tree, I heard several peculiar, long-drawn whistles in different keys, and I knew that he was in the neighborhood. For a long time he hesitated to come near, but kept in the tree tops out of sight, still calling. At length I attempted to respond to his calls, and presently he flitted nearer, finally alighting over my head in a tree at the edge of the woods. His was a most unusual call, a plaintive though loud whistle, uttered singly, each call in a different key from the preceeding utterance, as if he were practicing various tones of the musical scale, though he appeared to strike only three or four different tones.

Several conclusions may be drawn from the finding of this nest. The fact is established that the varied thrush nests regularly as far eastward as Flathead Lake; it is also apparent that this thrush nests later than is generally supposed; and that under ordinary circumstances, after its first brood has left the nest, it hastens to rear another brood. Generally the nest-site is much lower than in the instance under consideration, according to the reports of native observers; and it was because of this I did not think of making such a find at the time. Later examination of the nest showed that the foundation and walls contained dried leaves and similar material which had dried in form, giving a solidity to the structure common to nests of other thrushes.

This season for the first time I found the Tennessee warbler (*Helminthophila peregrina*) at home. Near the station there is a large willow swamp, annually overflowed and usually inaccessible because of mosquitoes; but this season there was a pleasant lack of such pests, and I spent many hours with the birds in the swamp. On June 29 my attention was attracted by a new song. At a favorable opportunity I captured the songster. He spent most of his time in the top of the lower undergrowth and shrubbery, but when taken he was singing vigorously among the larger willows. It proved to be a new bird to my Montana list, easily identified. Another male was singing as it gleaned among the foliage of dogwood and willow saplings, but at that time I had no need for it. Soon several males were found to be frequenting that part of the swamp, each appearing to have his little area. On several occasions I followed a singing male entirely around his little domain, and in the course of my visits to the swamp I learned the particular locality each male frequented. The center of operations of each was a little open-

ing among willows where there was a mossy bog and several cottonwood trees, with tangled dogwood and other shrubbery surrounding the area.

On June 30 I spent most of the day watching the Tennessee warblers in this swamp. The males only were seen, and though I searched every bit of the area under observation and the shrubbery for many yards around the places, it appeared that I did not get near a nest, for the male would manifest no anxiety, merely moving farther away when I gradually drew nearer, and he would spend most of the time among the foliage. The songster would spend most of the time among the stems in the lowest foliage of the swamp, apparently at a level of five to ten feet from the ground.

The male Tennessee warbler is a most persistent songster, rivalling the red-eyed vireo in this respect. The song is very characteristic, as uttered by the different performers in various localities of the swamp. It can be expressed as follows: "*Tuh wit, tuh wit, tuh wit, tzee tzee tzee tzee, chee chee chee chee chee chee*

NEST AND EGGS OF THE VARIED THRUSH

chee chee chee chee," expanding in power to the close, as is usual with many warbler songs. In the three weeks that I spent, more or less, in searching the swamp for nests of this warbler, I did not hear any variations of the foregoing song, except perhaps some slighting of the opening syllables, or an omission of one or more of the "*chee*" in closing.

Sunday, July 3, was fair and warm, and I spent the forenoon in the swamp searching for warbler nests. On that day I saw the first female warbler. She came flitting in the medium-sized aspens, at the edge of one of the little openings, and was carrying a blade of dried grass in her mouth. As I had just then chanced on a nest of red-eyed vireo, I thought at first that I was dealing with the female owner of the nest. The little superciliary streak of white lent color to the illusion; indeed, this warbler is not unlike a small pattern of the red-eyed vireo. When she saw me she dropped her burden and chirped rather feebly around me. A

male was singing nearby, though not so vigorously as usual while in that neighborhood. After chirping quietly near the place, the female flitted away and I saw her no more. I concluded that nest-building was then in progress, and decided to leave the warblers for awhile.

Two weeks later, while at the same place I had seen the female carrying her nest material, I engaged the attention of two warblers, a male and a female. During the hour I spent searching the shrubbery near the place, the two birds manifested much uneasiness, though chirping in their quiet fashion. I am as certain that there was a nest in the neighoorhood as anyone can be without ocular demonstration, but I failed to find it, though I searched both among the dead leaves on the ground and every bit of bush within fifty yards of that place as a center. During all this period, from June 20 to nearly the end of July, the males were in song, and were only silenced by the parching heat of the sultry July afternoons. It seems perfectly safe to assume that this warbler nests in Montana in the Flathead region, and further observation will verify the assumption.

Lewistown, Montana.

Summer Birds of the Papago Indian Reservation and of the Santa Rita Mountains, Arizona

BY HARRY S. SWARTH

SOUTH of Tucson, Arizona, along the banks of the Santa Cruz River, lies a region offering the greatest inducements to the ornithologist. The river, running underground for most of its course, rises to the surface at this point, and the bottom lands on either side are covered, miles in extent, with a thick growth of giant mesquite trees, literally giants, for a person accustomed to the scrubby bush that grows everywhere in the desert regions of the southwest, can hardly believe that these fine trees, many of them sixty feet high and over, really belong to the same species. This magnificent grove is included in the Papago Indian reservation, which is the only reason for the trees surviving as long as they have, since elsewhere every mesquite large enough to be used as firewood has been ruthlessly cut down, to grow up again as a straggly bush.

Twice, at about the same season of the year, it has been my good fortune to spend a short time studying the birds of this region. The first time was in 1902, when Mr. O. W. Howard and I spent a week, from May 17 to 23, in the mesquites; while my second visit to the place was in 1903, when Mr. F. Stephens and I explored it pretty thoroughly during the first two weeks in June.

Leaving Tucson on the afternoon of June 3, we had ourselves and outfit driven to a spot about at the edge of the big mesquite forest, some ten miles from town, and less than a mile from the old San Xavier Mission. But little could be done that day beside getting some order in camp, and the first thing the next morning we went to call on Mr. Berger, the Indian agent, to whom we explained our aims and objects. He at once gave us permission to camp as long as we desired, and to make ourselves at home in every way; with the added request, however, that we refrain from shooting around the fields where the Indians were getting in hay. It seemed that some sportsmen (?) from town had on various occasions, in their reckless shooting, peppered the Indians with shot, a procedure to which Lo most unreasonably objected.